ANTIOXIDATIVE PROPERTIES OF FISH BALLS ADDED WITH HYDROLYSATE FROM SUTCHI CATFISH (*Pangasius hyphophthalmus*)

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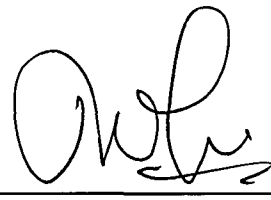
APPROVAL SHEET

This Final Year Project entitled **"ANTIOXIATIVE PROPERTIES OF FISH BALLS ADDED WITH HYDROLYSATE FROM SUTCHI CATFISH (*Pangasius hyphophthalmus*)"** was submitted by Najla Bt Ahmad Kendong, in partial fulfilment of the requirements for the Degree of Bachelor of Science (Hons.) Food Science and Technology in the Faculty of Applied Sciences, and was approved by



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Najla Bt Ahmad Kendong

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ABSTRACT

ANTIOXIDATIVE PROPERTIES OF FISH BALLS ADDED WITH HYDROLYSATE FROM SUTCHI CATFISH (*Pangasius hyphophthalmus*)

The aim of this research was to produce hydrolysate from sutchi catfish and investigate its antioxidative properties, and to determine the oxidative stability of sutchi catfsh fish balls with the addition of sutchi catfish hydrolysate. Fish protein hydrolysates have been produced and proven to have antioxidative activity but to date, no further analysis have been done on sutchi catfish. For this reason, it was decided to test further applications, with the aim of describing the antioxidative properties for further development. This research first examined the DPPH radical scavenging activity and reducing power of sutchi catfish hydrolysate and was compared to the antioxidative properties of BHA. The samples were stored for 5 weeks at 4°C and the analyses were carried out once a week. The results indicated that sutchi catfish protein hydrolysate had antioxidant activities similar to BHA. Determination of oxidative stability of sutchi catfish fish balls during storage was conducted by analysing the free fatty acid contents, peroxide value and TBARS. Three types of fish balls containing of sutchi catfish hydrolysate, BHA and without any antioxidant were analysed weekly for 4 weeks. The results suggested that both BHA and sutchi catfish hydrolysate effectively prevented lipid oxidation of fish balls during storage. In conclusion, the protein hydrolysate derived from sutchi catfish may potentially serve as a good source of desirable antioxidant. It can be used as a natural additive and antioxidative properties in food systems.